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46169 7590 03/31/2011 SHOOK, HARDY & BACON L.L.P. (Cerner Corporation) Intellectual Property Department 2555 GRAND BOULEVARD KANSAS CITY, MO 64108-2613			EXAMINER RAJ, RAJIV J	
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/679,836
Filing Date: October 06, 2003
Appellant(s): WAGER et al.

Douglas W. Wager
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 24 February 2011 appealing from the Office action mailed 31 August 2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-2, 507, 9-24 & 39-49 stand rejected and are currently appealed.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6061657	Whiting-O'Keefe	05-2000
5809477	Pollack	09-1998
7155399 B2	Andre et al.	12-2006
2003/0202076 A1	Zaleski	05-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. In light of the amendments to claims 1-24 & 39-40, the previous rejection under 35 U.S.C. 101, is withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-2, 5, 7-17, 19-24, & 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe (US 6061657) in view of Pollack (US 5809477) in view of Andre et al. (US 7155399 B2) (hereinafter Andre) in further view of Zaleski (US 2003/0101076 A1) (Zaleski).

As per claim 1

Whiting-O'Keefe as shown, teaches the following limitation:

- *determining a type of patient population that the particular patient is a member of;* (see at least Whiting-O'Keefe Claims:1,2,6 & 44 and Fig:3 & related text)
- *calculating, with a computer processor, . . . the particular patient. . . ;* (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 Fig:6,7 Fig:9 Items:161-179 & related text)

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *obtaining patient data for the particular patient directly from a primary clinical information systems;* (see at least Pollack Fig:2 Item:210 Fig:3 Item:310 & related text)
- *comparing the data for the particular patient to the work factors to determine which factors are satisfied;* (see at least Pollack Fig:5&6 Items:500-655 & related text)
- *accessing a weighted value for each satisfied work factor;* (see at least Pollack Fig:3,5,6 & related text)

- *assigning each satisfied work factor with a weighted score;* (see at least Pollack Fig:2 Items:200-230 Fig:3 Items:200-340 Fig:4 Items:400-450 & related text)
- *accessing work factors for the type of patient population;* (see at least Pollack Fig:3,5,6 & related text)
- *a work score for . . . using the satisfied work factors;* (see at least Pollack Fig:5&6 Items:500-655 & related text)
- *. . .work score factors;* (see at least Pollack Fig:5&6 Items:500-655 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for implementing work score factors in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein the work score indicates a quantity of personnel hours anticipated to serve particular patient;* (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack with these aforementioned teachings from Andre with the motivation of having a means for

determining amount of hours required to care for a particular patient in a patient population. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

Whiting-O'Keefe/Pollack/Andre fails to teach the following limitations, however Zaleski does:

- *storing the particular patient's . . .*; (see at least Zaleski Claims:13 Fig:3 Item:202-208, 214 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre with these aforementioned teachings from Zaleski with the motivation of having a means for storing patient data when determining the particular work required to care for a particular patient. (see at least Zaleski [0012])

As per claim 2

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 1. Whiting-O'Keefe discloses the following limitation:

- *receiving a request for a particular patient's work score*; (see at least Whiting-O'Keefe Fig:2 Items:17 & related text)

As per claim 5

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 4. Pollack discloses the following limitation:

- *each work factor has one or more assigned weighted values*; (see at least Pollack Column:17 Line:67 & Column:18 Lines:1-5 "At Item 320, a numerical

value based on patient information is assigned for each category of diagnostic information and for each group of categories. Rules and guidelines for the assignment of numerical values are set forth in the detailed descriptions of the scoring methodologies set forth above”)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O’Keefe with these aforementioned teachings from Pollack with the motivation of having a means for implementing weighted work score factors in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

As per claim 7

The combination of Whiting-O’Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 5. Whiting-O’Keefe discloses the following limitation:

- *obtaining rules for generating a work score for the particular patient;* (see at least Whiting-O’Keefe Column:8 Lines:45-62)

As per claim 9

The combination of Whiting-O’Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 1. Whiting-O’Keefe discloses the following limitation:

- *the patient data is one of outstanding orders, outstanding tasks, completed orders, completed tasks, services provided by personnel over a period of time, scheduled procedures, scheduled outpatient care, assigned tasks, assigned*

orders, assessments, tasks, services typically delivered for a specific patient or patient type and combinations thereof (see at least Whiting-O'Keefe Column:4 Lines:50-67)

As per claim 10

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 1. Whiting-O'Keefe discloses the following limitation:

- *wherein the work score is prospective* (see at least Whiting-O'Keefe Fig:10 Items:193 & related text)

As per claim 11

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 1. Whiting-O'Keefe discloses the following limitation:

- *wherein the work score is retrospective* (see at least Whiting-O'Keefe Fig:10 Items:191 & related text)

As per claim 12

Whiting-O'Keefe as shown, teaches the following limitation:

- *determining a type of patient population that each of the one or more patients are a member of;* (see at least Whiting-O'Keefe Claims:1,2,6 & 44 and Fig:3 & related text)
- *accessing work factors for the type of patient population;* (see at least Whiting-O'Keefe Fig:3 Items:33-45 & related text)

- *calculating, with the processor, . . . for each of the one or more patients in a patient population;* (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 Fig:6-7 Fig:9 Items:161-179 & related text)

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *obtaining patient data for one or more patients in a patient population directly from a primary clinical information systems;* (see at least Pollack Fig:2 Item:210 Fig:3 Item:310 & related text)
- *comparing the patient data for each of the one or more patients to the work factors to determine which factors are satisfied;* (see at least Pollack Fig:3-6 Items:500-655 & related text)
- *accessing a weighted value for each satisfied work factor;* (see at least Pollack Fig:3,5,6 & related text)
- *assigning each satisfied work factor with a weighted score;* (see at least Pollack Fig:2 Items:200-230 Fig:3 Items:200-340 Fig:4 Items:400-450 & related text)
- *calculating staffing needs for the patient population based on the work scores obtained for the one or more patients in the patient population* (see at least Pollack Claim:1 (b)-(d))
- *a work score for . . . using the satisfied work factors;* (see at least Pollack Fig:5&6 Items:500-655 & related text)
- *. . . .one or more work scores . . . ;* (see at least Pollack Fig:5&6 Items:500-655 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for implementing work score factors in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein the work score indicates a quantity of personnel hours anticipated to serve each of the one or more patients;* (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack with these aforementioned teachings from Andre with the motivation of having a means for determining amount of hours required to care for a particular patient in a patient population. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

Whiting-O'Keefe/Pollack/Andre fails to teach the following limitations, however Zaleski does:

- *storing . . . for the one or more patients in the patient population;* (see at least Zaleski Claims:13 Fig:3 Item:202-208, 214 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre with these

aforementioned teachings from Zaleski with the motivation of having a means for storing patient data when determining the particular work required to care for a particular patient. (see at least Zaleski [0012])

As per claim 13

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 12. Whiting-O'Keefe discloses the following limitation:

- *receiving a request for a particular patient in the work score for the patient population;* (see at least Whiting-O'Keefe Fig:1 A-C)

As per claim 14

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 13. Whiting-O'Keefe discloses the following limitation:

- *determining the patients in the population;* (see at least Whiting-O'Keefe Fig:3 Item:31)

As per claim 15

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 14. Whiting-O'Keefe discloses the following limitation:

- *obtaining the work factors for the population* (see at least Whiting-O'Keefe Fig:3 Item:33-37)

As per claim 16

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 15. Whiting-O'Keefe discloses the following limitation:

- *determining which of the factors are triggered by the data for the particular patient in the population;* (see at least Whiting-O'Keefe Claim:20 "solving an estimate model of a total amount of charges for the encounters within a summary record as a function of a plurality of model variables and regression coefficients taken or derivable from the data within said at least one summary record, said regression coefficients having been previously determined with the same estimate model to optimize a fit of said estimate model for a population of patients with data within a summary record corresponding to said at least one summary record)

As per claim 17

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 15. Pollack discloses the following limitation:

- *wherein each factor has an assigned value* (see at least Pollack Column:17 Line:67 & Column:18 Lines:1-5 "At Item 320, a numerical value based on patient information is assigned for each category of diagnostic information and for each group of categories. Rules and guidelines for the assignment of numerical values are set forth in the detailed descriptions of the scoring methodologies set forth above")

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for

implementing assigned work score factors in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

As per claim 19

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 17. Whiting-O'Keefe discloses the following limitation:

- *obtaining rules for generating a work score for a particular patient in the population (see at least Whiting-O'Keefe Column:8 Lines:45-62)*

As per claim 20

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 19. Whiting-O'Keefe discloses the following limitation:

- *utilizing the rules and values of factors triggered by the data to generate a work score for the particular patient in the patient population; (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)*

As per claim 21

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 20. Whiting-O'Keefe discloses the following limitation:

- *accumulating the work scores for all patients in the population; (see at least Whiting-O'Keefe Claim:17)*

As per claim 22

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 21. Pollack discloses the following limitation:

- *obtaining staffing standards for the population* (see at least Pollack Fig:2 Items:220 Fig:6 Items:645 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for implementing a feature for determining the staffing needs for a particular population in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

As per claim 23

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 22. Pollack discloses the following limitation:

- *calculating staffing needs based on the work scores obtained for the patients in the patient population and the staffing standards for the population;* (see at least Pollack Claim:1 (b)-(d))

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for calculating work score factors in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

As per claim 24

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 12. Whiting-O'Keefe discloses the following limitation:

- *the data is one of outstanding orders, outstanding tasks, completed orders, completed tasks, services provided by personnel over a period of time, scheduled procedures, scheduled outpatient care, assigned tasks, assigned orders, assessments, tasks, services typically delivered for a specific patient or patient type and combinations thereof (see at least Whiting-O'Keefe Column:4 Lines:50-67)*

As per claim 40

Whiting-O'Keefe as shown, teaches the following limitation:

- *calculating, with a computer processor, a work score for each patient in a patient population utilizing data obtained directly from a primary clinical information system; (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 Fig:9 Items:161-179 & related text)*

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *calculating staffing needs for the patient population based on the work scores obtained for each patient in the patient population (see at least Pollack Claim:1 (b)-(d))*
- *. . . the work score; (see at least Pollack Fig:3-6 & related text)*

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for implementing work score factors in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein the work score is a quantity of personnel hours required to serve each patient in the patient population by a healthcare provider;* (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack with these aforementioned teachings from Andre with the motivation of having a means for determining amount of hours required to care for a particular patient in a patient population. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

Whiting-O'Keefe/Pollack/Andre fails to teach the following limitations, however Zaleski does:

- *storing . . . for each patients;* (see at least Zaleski Claims:13 Fig:3 Item:202-208, 214 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre with these

aforementioned teachings from Zaleski with the motivation of having a means for storing patient data when determining the particular work required to care for a particular patient. (see at least Zaleski [0012])

6. Claims 6, 18, 39 & 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Pollack in view of Andre in view of Zaleski in further view of Richardson et al. (US 6193654 B1) (hereinafter Richardson).

As per claim 6

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 5. Richardson further discloses the following limitation:

- *adjusting the weighted value of one or more work factors triggered by the patient data based on rules;* (see at least Richardson Claim:19 (g) "At Item 320, a numerical value based on patient information is assigned for each category of diagnostic information and for each group of categories. Rules and guidelines for the assignment of numerical values are set forth in the detailed descriptions of the scoring methodologies set forth above")

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre/Zaleski with these aforementioned teachings from Richardson with the motivation of having a means for assigning values to specific patient factors and having specific guidelines for adjusting said values. (see at least Richardson Column:3 Lines:36-48)

As per claim 18

The combination of Whiting-O'Keefe/Pollack/Andre/Zaleski discloses all of the limitations of claim 17. Richardson further discloses the following limitation:

- *adjusting the value of one or more factors triggered by the data;* (see at least Richardson Claim:19 (g) "At Item 320, a numerical value based on patient information is assigned for each category of diagnostic information and for each group of categories. Rules and guidelines for the assignment of numerical values are set forth in the detailed descriptions of the scoring methodologies set forth above")

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre/Zaleski with these aforementioned teachings from Richardson with the motivation of having a means for assigning values to specific patient factors and having specific guidelines for adjusting said values. (see at least Richardson Column:3 Lines:36-48)

As per claim 39

Whiting-O'Keefe as shown, teaches the following limitation:

- *determining a type of patient population that the particular patient is a member of;* (see at least Whiting-O'Keefe Claims:1,2,6 & 44 and Fig:3 & related text)
- *accessing work factors for the type of patient population;* (see at least Whiting-O'Keefe Fig:3 Items:33-45 & related text)

- *utilizing the weighted score a first instance of a work score for the particular patient using the satisfied work factors; (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 Fig:6,7 Fig:9 Items:161-179 & related text)*
- *determining a type of patient population that the patient is a member of; (see at least Whiting-O'Keefe Claims:1,2,6 & 44 and Fig:3 & related text)*
- *accessing work factors for the type of patient population; (see at least Whiting-O'Keefe Fig:3 Items:33-45 & related text)*
- *utilizing the weighted score to calculate a second instance of a work score for the particular patient using the satisfied work factors; (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 Fig:6,7 Fig:9 Items:161-179 & related text)*

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *obtaining patient data for a particular patient at a first point in time directly from a primary clinical information systems; (see at least Pollack Fig:2 Item:210 Fig:3 Item:310 & related text)*
- *comparing the patient data for the particular patient to the work factors to determine which factors are satisfied; (see at least Pollack Fig:5&6 Items:500-655 & related text)*
- *accessing weighted value for each satisfied work factor; (see at least Pollack Fig:3,5,6 & related text)*
- *assigning each satisfied work factor with a weighted score; (see at least Pollack Fig:2 Items:200-230 Fig:3 Items:200-340 Fig:4 Items:400-450 & related text)*

- *obtaining patient data for the particular patient at a second point in time directly from a primary clinical information systems; (see at least Pollack Fig:2 Item:210 Fig:3 Item:310 & related text)*
- *comparing the patient data for the particular patient to the work factors to determine which factors are satisfied; (see at least Pollack Fig:5&6 Items:500-655 & related text)*
- *accessing weighted value for each satisfied work factor; (see at least Pollack Fig:3,5,6 & related text)*
- *assigning each satisfied work factor with a weighted score; (see at least Pollack Fig:2 Items:200-230 Fig:3 Items:200-340 Fig:4 Items:400-450 & related text)*
- *wherein the first instance of a work score is compared to a second instance of a work score for the particular patient based on the patient data in the primary clinical information system; (see at least Pollack Fig:5&6 Items:545-645 & related text)*
- *. . . work score; (see at least Pollack Fig:3-6 & related text)*
- *. . . work score; (see at least Pollack Fig:3-6 & related text)*

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for implementing work score factors in an assessment for determining the amount of

work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein the first instance of a work score includes a measure of personnel hours anticipated for the particular patient at a first point in time;* (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)
- *wherein the second instance of a work score includes a measure of personnel hours anticipated for the particular patient at a second point in time;* (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack with these aforementioned teachings from Andre with the motivation of having a means for determining amount of hours required to care for a particular patient in a patient population. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

Whiting-O'Keefe/Pollack/Andre fails to teach the following limitations, however Richardson does:

- *trending the work score for the particular patient;* (see at least Richardson Fig:3 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre/Zaleski with

these aforementioned teachings from Richardson with the motivation of having a means for plotting values of specific patient factors and having specific guidelines for adjusting said values. (see at least Richardson Column:3 Lines:36-48)

Whiting-O'Keefe/Pollack/Andre/Richardson fails to teach the following limitations, however Zaleski does:

- *storing the first instance; . . .* (see at least Zaleski Claims:13 Fig:3 Item:202-208, 214 & related text)
- *storing the second instance . . .*; (see at least Zaleski Claims:13 Fig:3 Item:202-208, 214 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre with these aforementioned teachings from Zaleski with the motivation of having a means for storing patient data when determining the particular work required to care for a particular patient. (see at least Zaleski [0012])

As per claim 49

The combination of Whiting-O'Keefe/Pollack/Andre//Zaleski Richardson discloses all of the limitations of claim. Pollack further discloses the following limitation:

- *further comprises more than two instances of a work score for the particular patient based on the patient's data in the primary clinical information system;*
(see at least Pollack Fig:5&6 Items:545-645 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for implementing work score factors in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack/Andre/Richardson fails to teach the following limitations, however Richardson does:

- *trending the work score for the particular patient;* (see at least Richardson Fig:3 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre/Zaleski with these aforementioned teachings from Richardson with the motivation of having a means for plotting values of specific patient factors and having specific guidelines for adjusting said values. (see at least Richardson Column:3 Lines:36-48)

7. Claims 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view Pollack in further view of Zaleski.

As per claim 41

Whiting-O'Keefe as shown, teaches the following limitation:

- *a work calculation module for calculating a work score for one or more patients;*
(see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)

System claim 41 repeats the subject matter of method claim 1 respectively, as a system rather than a series of steps. As the underlying process of claim 1 has been shown to be fully disclosed by the teachings of Whiting-O'Keefe in the above rejection of claim 1, it is readily apparent that the limitations disclosed by Whiting-O'Keefe include the apparatus to perform these functions. As such, these limitations are rejected for the same reasons given above for method claim 1 and incorporated herein.

- *receiving input from the work calculation module about prospective workload;*
(see at least Whiting O'Keefe Fig:2&3 Items:17-45 & related text)
- *a demand forecast module for forecasting the volume and type of patients who will present;* (see at least Whiting-O'Keefe Fig:3 Items:43-45 & related text)
- *communicating information regarding a forecasted demand generated by the demand forecast module to the work calculation module and communication information;* (see at least Whiting O'Keefe Column:12 Lines:62-67 Column:13 Lines:1-15 Fig:3 Items:43-45 & related text)
- *a resource dashboard module for . . . displaying information regarding personnel and patients* (see at least Whiting-O'Keefe Fig:9 Items:163, 175-179 & related text)

- *receiving work calculations for the patient population from the work calculation module;* (see at least Whiting O'Keefe Fig:2&3 Items:17-45 & related text)

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *to help determine anticipated clinical demand;* (see at least Pollack Claims:1 (b-d) Fig:2 Items:22 Fig:6 Items:640 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for implementing work score factors in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Zaleski does:

- *a staff scheduling and staffing module for . . . identifying healthcare personnel positions to be filled;* (see at least Zaleski [0007], Fig:1 Items:108, 109 & related text)
- *the staff scheduling and staffing module;* (see at least Zaleski [0007], Fig:1 Items:108, 109 & related text)
- *a role management module for managing the roles and information regarding personnel;* (see at least Zaleski [0005]-[0007])

- *a workforce outcomes module for determining how effectively healthcare personnel have been used; (see at least Zaleski [0005]-[0007])*
- *receiving information regarding staff scheduling from the staff scheduling and staffing module; (see at least Zaleski [0005-0007] Claim:1 Fig:1 Items:108-109 & related text)*

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre with these aforementioned teachings from Zaleski with the motivation of having a means for determining the most effective staffing needs when determining the particular work required to care for a particular patient. (see at least Zaleski [0012])

8. Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Zaleski in further view of Ross, Jr. et al. (US 7076436 B1) (hereinafter Ross).

As per claim 42

The combination of Whiting-O'Keefe/Zaleski discloses all of the limitations of claim 41. Ross further discloses the following limitation:

- *an enterprise scheduling module for identifying information regarding appointments for outpatient procedures (see at least Ross Fig:4 Items:102, 116-118 & related text)*

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre with these aforementioned teachings from Zaleski with the motivation of having a means for scheduling specific types of patient care when determining the particular work required to care for a particular patient. (see at least Ross Column:1 Lines:9-13)

As per claim 43

The combination of Whiting-O'Keefe/Zaleski discloses all of the limitations of claim 42. Ross further discloses the following limitation:

- *an enterprise scheduling module for identifying information regarding appointments for outpatient procedures* (see at least Ross Fig:7 Items:138 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre with these aforementioned teachings from Ross with the motivation of having a means for scheduling specific types of patient care when determining the particular work required to care for a particular patient. (see at least Ross Column:1 Lines:9-13)

9. Claims 44 & 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Zaleski, in view of Ross, in further view of Richardson.

As per claim 44

The combination of Whiting-O'Keefe/Zaleski/Ross discloses all of the limitations of claim 43. Richardson further discloses the following limitation:

- *a registration module for identifying and tracking patient registration, census and activity* (see at least Richardson Column:6 Lines:45-54)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre/Zaleski with these aforementioned teachings from Richardson with the motivation of having a means for monitoring values of specific patient factors and having specific guidelines for adjusting said values. (see at least Richardson Column:3 Lines:36-48)

As per claim 45

The combination of Whiting-O'Keefe/Zaleski/Ross/Richardson discloses all of the limitations of claim 44. Whiting-O'Keefe further discloses the following limitation:

- *a medical records module for capturing and storing patient data* (see at least Whiting-O'Keefe Column:7 Lines:34-47 Fig:9 Items:161-179 & related text)

10. Claims 46 & 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Zaleski, in view of Ross, in view of Richardson, in further view of Pollack.

As per claim 46

The combination of Whiting-O'Keefe/Zaleski/Ross/Richardson discloses all of the limitations of claim 45. Pollack further discloses the following limitation:

- *a patient severity module for providing information regarding the status and conditions of patients* (see at least Pollack Column:9 Lines:49-51, Fig:3, & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe with these aforementioned teachings from Pollack with the motivation of having a means for implementing work score factors in an assessment for determining the amount of work it takes to care for a patient population. (see at least Pollack Column:3 Lines:30-38)

As per claim 47

The combination of Whiting-O'Keefe/Zaleski/Ross/Richardson discloses all of the limitations of claim 46. Ross further discloses the following limitation:

- *a departmental tracking module for tracking patients through different departments* (see at least Ross Fig:2 Item:102 & related text)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Pollack/Andre with these aforementioned teachings from Ross with the motivation of having a means for tracking specific types of patient care when determining the particular work required to care for a particular patient. (see at least Ross Column:1 Lines:9-13)

11. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Zaleski, in view of Ross, in view of Richardson, in view of Pollack, in further view of Brandt et al. (US 2003/0050797 A1) (hereinafter Brandt).

As per claim 48

The combination of Whiting-O'Keefe/Zaleski/Ross/Richardson/Pollack discloses all of the limitations of claim 47. Brandt further discloses the following limitation:

- *a personal work queue module for tracking and displaying work to be performed by individual personnel* (see at least Brandt [0005])

At the time of the invention, it would have been obvious for one of ordinary skill in the art to have modified the teachings of Whiting-O'Keefe/Zaleski/Ross/Richardson/Pollack with these aforementioned teachings from Brandt with the motivation of providing a queuing means for tracking work factors of individual personnel when determining the particular work required to care for a particular patient. (see at least Brandt [0004])

(10) Response to Argument

12. Applicant's initial argument does not state a reason of merit why the cited prior art (specifically Whiting-O'Keefe) fails to disclose the limitations of claim 1. Applicant's argument is based purely on a recitation of passages of Applicant's Specification and Applicant's unsupported assertions. Upon review the Examiner stands by the rejection which clearly discloses Applicant's limitations of claim 1.

13. The Examiner respectfully disagrees with Applicant's argument that cited prior art fails to teach or disclose "determining a type of patient population that the particular patient is a member of, because the cited prior art is "not patient-specific". The cited prior art (see at least Whiting-O'Keefe Fig:3 Items:31-37 & related text) does disclose in invention for grouping patients using calculated criteria and characteristics.

14. In response to applicant's argument that cited prior art is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

15. In response to applicant's argument that Pollack does not teach "primary clinical information system" which related to the "planning and documenting of care", the Examiner has fully considered applicant's and finds the unpersuasive. The Examiner points out that the claim language applicant is arguing over is not in the limitations, but rather is based on applicant's Specification. Further, the Examiner points out that Pollack (see at least Pollack Fig:2 Items:200-230 & related text) clearly shows calculation of patient information to determine plans for said patients care.

16. In response to Applicant's argument that Pollack fails to teach "*comparing the data for the particular patient to the work factors to determine which factors are satisfied*" & "*accessing a weighted value for each satisfied work factor*" & "*assigning each satisfied work factor with a weighted score*" of claim 1, the Examiner respectfully

disagrees in light of the cited prior art (see at least Pollack Fig:3,5-6 & related text) .

The cited prior art teaches a severity score, a score which is assigned, and used to compare the data for patients in order to determine which criteria are satisfied.

17. In response to Applicant's arguments that Pollack fails to disclose "calculating a work score for a particular patient using satisfied work factors". The Examiner has fully considered Applicant's arguments and finds them unpersuasive. The Applicants bases this argument partly on the claim language "*quantity of personnel hours anticipated*" which is actually taught by another reference (see at lease Andre). Further, Pollack does disclose factors and scores related to patient care (see at least Pollack Fig:5&6 & related text), which discloses calculations of score based on said work scores.

18. In response to Applicant's arguments that Andre fails to disclose "*wherein the work score indicates a quantity of personnel hours anticipated to serve each of the one or more patients*" the Examiner respectfully disagrees with Applicant's argument. Andre discloses an invention that generates a schedule, or anticipated hours worked, for workers serving a patient population, and does so as to maximize patient care and use of resources while minimizing waste.

19. Applicant's arguments supporting the allowability of claims 2, 5 & 7-11 are based on their dependency on claim 1, and thus are rejected on the same grounds.

20. Applicant's arguments for claim 12 are substantially similar to those for claim 1 and thus are rejected on substantially similar grounds.

21. Applicant's arguments for claim 40 are substantially similar to those for claims 1 & 12 and thus are rejected on substantially similar grounds.

22. In response to applicant's argument that Richardson is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Further, Applicant's remaining arguments in regards to reference Richardson are based on mere unsupported assertions of the Applicant.

23. Applicant's arguments supporting the allowability of claim 18 are based on their dependency on claim 12, and thus are rejected on the same grounds. Further, Applicant's remaining arguments in regards to claim 18 are based on mere unsupported assertions of the Applicant.

24. Applicant's arguments for claim 39 are substantially similar to those for claim 1 & 12 and thus are rejected on substantially similar grounds. Further, Applicant's assertion that "*work score indicates a quantity of personnel hours*" is not disclosed by Andre is incorrect as Andre discloses numerical values used to calculate an anticipated schedule, which is not patently distinct. (see at least Andre Fig:2-4 & related text). In addition, Examiner respectfully disagrees with applicant's assertion that Andre fails to disclose a "personnel hours for several different healthcare providers" in light of Andre which discloses "A system and method for generating a schedule for multiple

employees in a complex environment . . . generating schedules for multiple employees with varying skill sets . . . " (see at least Andre Column:2 Lines:50-58 Fig:2-4 & related text).

25. Applicant's arguments supporting the allowability of claim 49 are based on their dependency on claim 39, and thus are rejected on the same grounds.

26. Applicant's arguments for claim 41 are substantially similar to those for claims 1 & 12 and thus are rejected on substantially similar grounds.

27. Applicant's arguments supporting the allowability of claims 42-43 are based on their dependency on claim 41, and thus are rejected on the same grounds.

28. Applicant's arguments supporting the allowability of claims 44-45 are based on their dependency on claim 41, and thus are rejected on the same grounds.

29. Applicant's arguments supporting the allowability of claims 46-47 are based on their dependency on claim 41, and thus are rejected on the same grounds.

30. Applicant's arguments supporting the allowability of claim 48 are based on their dependency on claim 41, and thus are rejected on the same grounds.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

(12) Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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